

**WHAT IS CLAIMED IS:**

1. A method in a data processing system having a program, the method comprising the steps of:

5 providing a datatype having a metadata that describes a data and a reference to the data, the data being maintained separately from the datatype, the metadata including a key that enables the datatype to be joined with other datatypes having the key in their respective metadata; and

10 publishing the datatype, a subscriber receiving the datatype responsive to subscribing to the datatype and receiving the other datatypes that have the key in their respective metadata.

2. The method of claim 1, wherein the data is not published with the datatype.

15 3. The method of claim 1, wherein the reference to the data is a pointer.

4. The method of claim 1, further comprising the step of:  
registering the datatype.

20 5. The method of claim 1, further comprising the step of:  
registering the key.

25 6. The method of claim 1, wherein the metadata includes a plurality of different keys.

7. A computer-readable medium containing instructions that cause a program in a data processing medium to perform a method comprising the steps of:

30 providing a datatype having a metadata that describes a data and a reference to the data, the data being maintained separately from the datatype, the metadata including a key that enables the datatype to be joined with other datatypes having the key in their respective metadata; and

publishing the datatype, a subscriber receiving the datatype responsive to subscribing to the datatype and receiving the other datatypes that have the key in their respective metadata.

8. The computer-readable medium of claim 7, wherein the data is not published with the datatype.

5

9. The computer-readable medium of claim 7, wherein the reference to the data is a pointer.

10

10. The computer-readable medium of claim 7, further comprising the step of: registering the datatype.

11. The computer-readable medium of claim 7, further comprising the step of: registering the key.

15

12. The computer-readable medium of claim 7, wherein the metadata includes a plurality of different keys.

13. A data processing system comprising:  
a memory having a program that:

20

provides a datatype having a metadata that describes a data and a reference to the data, the data being maintained separately from the datatype, the metadata including a key that enables the datatype to be joined with other datatypes having the key in their respective metadata, and

25

publishes the datatype, a subscriber receiving the datatype responsive to subscribing to the datatype and receiving the other datatypes that have the key in their respective metadata; and

a processing unit that runs the program.

30

14. A data processing system comprising:  
means for providing a datatype having a metadata that describes a data and a reference to the data, the data being maintained separately from the datatype, the metadata including a key that enables the datatype to be joined with other datatypes having the key in their respective metadata; and

means for publishing the datatype, a subscriber receiving the datatype responsive to subscribing to the datatype and receiving the other datatypes that have the key in their respective metadata.

5            15.     A data structure comprising:

              a datatype having a metadata that describes a data and a reference to the data, the data being maintained separately from the datatype, the metadata including a key that enables the datatype to be joined with other datatypes having the key in their respective metadata.